



# HaloSpray

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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

Product Name HaloSpray

### Other means of identification

Synonyms Sanosil S010

### Recommended use of the chemical and restrictions on use

Recommended Use Surface Disinfectant

Uses advised against No information available

### Details of the supplier of the safety data sheet

Supplier Name Halosil International Inc.

Supplier Address 91 Lukens Drive  
New Castle  
DE  
19720  
US

Supplier Phone Number Phone:302-454-8102

Supplier Email sales@halosill.com

Emergency telephone number CHEMTREC US and Canada-1-800-434-9300, Outside US-1-703-527-3887

Company Emergency Phone Number 302-454-8102

## 2. HAZARDS IDENTIFICATION


### Classification

Eye Irrit 2B H320

Eye irritation

Category 2 Sub-category B

**GHS Label elements, including precautionary statements**

<b>Emergency Overview</b>		
<b>Signal word</b>	<b>Warning</b>	
<b>Hazard Statements</b> H320-Causes eye irritation	 <b>GHS07</b>	
<b>Appearance</b> Colorless	<b>Physical state</b> Liquid	<b>Odor</b> Odorless

**Precautionary Statements – Prevention**

P-280 -Wear Protective gloves/protective clothing and eye/face protection and breathing protection.

P305+ P351 + P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337+P313- If eye irritation persists: Get medical advice/attention.

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity

**Other information****Interactions with Other Chemicals**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%	Trade Secret
Hydrogen peroxide	7722-84-1	5.00	
Silver nitrate	7761-88-8	.01	
Other ingredients		94.99	x

**4. FIRST AID MEASURES****First aid measures****General Advice**

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show label where possible).

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

**Skin contact**

Wash off immediately with plenty of water for 15 minutes while removing all contaminated clothes and shoes. Seek immediate medical attention/advice.

**Inhalation**

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur.

**Ingestion**

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

**Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

Symptoms/injuries after inhalation: May be irritating to the mucous membranes and to the respiratory system.

Symptoms/injuries after skin contact: Frequent or prolonged contact with skin may cause dermal irritation  
Symptoms/injuries after eye contact: Causes serious eye irritation.  
Symptoms/injuries after injection: May cause burns or irritation of the linings of the mouth, throat and GI tract.

### **Indication of any immediate medical attention and special treatment needed**

No additional information available

## **5. FIRE-FIGHTING MEASURES**

### **Suitable Extinguishing Media**

Flood with plenty of water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Unsuitable extinguishing media**

CAUTION: Organic compounds. As hydrogen peroxide may react with a variety of organic materials and form explosive mixtures, shock sensitive compounds and initiate fire. Foam is not effective as oxygen and heat continue to be generated under the foam.

### **Specific hazards arising from the chemical**

Hazardous decomposition products in case of fire. : Thermal decomposition can lead to release of oxygen which may intensify fire. Containers may swell and burst during a fire due to internal pressure caused by heat.

### **Advice for firefighters**

Firefighting instructions: Exercise caution when fighting any chemical fire.

### **Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

General Measures: Insure adequate ventilation. Do not breathe fumes, vapors. Avoid contact with skin, eyes and clothes

**Non-emergency Personnel precautions** Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

**Emergency responders**

Protective equipment: Equip cleanup crew with proper protection

Emergency procedures: Stop leak if safe to do so. Evacuate unnecessary personnel. Ventilate area.

**Environmental precautions**

**Environmental precautions** Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Contain any spills with dikes. To prevent migration and entry into sewers or streams. Soak up with inert absorbent material. Do not absorb in sawdust , paper cloth or other combustible absorbents. Comply with applicable local, national and international regulation.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Read label before use. Provide good ventilation in process area to prevent formation of vapor. Avoid all eye and skin contact and do not breathe vapor and mist. Keep away from incompatible materials. Wash hands and other exposed areas with mild soap before eating, drinking or smoking and when leaving work. Do not wear leather soled shoes.

Take care for general hygiene and housekeeping. Wash hands thoroughly after handling. Do not eat drink or smoke when using this product. Contaminated clothing should be washed thoroughly in order to eliminate a delayed potential fire hazard.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other incompatible materials. Strong alkalis, strong oxidizing agents. Organic materials. Reducing agents. Metal salts. Alkali Metals, wood, paper Copper and it's alloys. Keep away from heat and direct sunlight. Do not freeze.

**Incompatible Products** Acids. Bases. Oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup> (vacated) TWA: 1 ppm (vacated) TWA: 1.4 mg/m <sup>3</sup>	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

**Other Exposure Guidelines**

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

**Appropriate engineering controls**

**Engineering Measures**

Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be in the immediate vicinity of any potential exposure. Avoid all unnecessary exposure. Personal protective equipment should be selected upon the conditions under which this product is handled or used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear protective eyewear. Safety goggles and ½ face or full face respirator.

**Skin and body protection**

Wear protective gloves and protective clothing. Long sleeved clothing. Neoprene gloves.

**Respiratory protection**

Hydrogen Peroxide levels between 1 and 10 ppm requires at least half-face piece respirator (and appropriate eye protection) with either 3M 6003 or 6006 (organic vapor/acid gas or multi-gas) cartridge in combination with particulate filter (i.e. 5N11 or 5P71).\*

(\* 3M Technical Bulletin #185 and Solvay Chemicals Technical Communications TDS-No. HOOH-PAA-RESP.) If levels exceed 50 ppm, a full SCBA is necessary. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and Chemical Properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Colorless	<b>Odor Threshold</b>	No information available
<b>Color</b>	Colorless		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks</u></b>	<b><u>Method</u></b>
<b>pH</b>	3.0	None known	

<b>Melting / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash Point</b>	No data available	None known
<b>Evaporation Rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit</b>	No data available	
<b>Lower flammability limit</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Specific Gravity</b>	No data available	None known
<b>Water Solubility</b>	Completely soluble	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive properties</b>	Not explosive	
<b>Oxidizing properties</b>	oxidizer	

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	

**10. STABILITY AND REACTIVITY****Reactivity**

Thermal decomposition generates corrosive vapors.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Exposure to extremely high or low temperatures

**Incompatible materials**

Acids. Bases. Oxidizing agent. Organic materials, reducing agents, metal salts, readily oxidizable materials such as paper, wood, sulfur, copper and it's alloys.

**Hazardous Decomposition Products**

Oxygen.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information****Inhalation**

May cause irritation of respiratory tract.

**Eye contact** Moderate eye irritant. (Based on product). .

**Skin contact** Slight irritant. (Based on product).

**Ingestion**

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Product	>5000 mg/kg ( Rat )	>5000 mg/kg ( Rabbit )	= 2 g/m <sup>3</sup> ( Rat ) 4 h

#### Information on toxicological effects

**Symptoms** May cause temporary skin whiteness. Coughing and/ or wheezing. Eye irritation.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** Guinea Pig, non-sensitizing (skin).

**Mutagenic Effects** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen peroxide 7722-84-1	A3	Group 3		

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*A3 - Animal Carcinogen*

*IARC (International Agency for Research on Cancer)*

*Group 3 - Not Classifiable as to Carcinogenicity in Humans*

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Chronic Toxicity** No known effect based on information supplied. Carcinogenic potential is unknown.

**Target Organ Effects** Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Blood. Lungs.

**Aspiration Hazard** No information available.

#### Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

##### **ATEmix (oral)**

801.000 mg/kg bodyweight

##### **ATEmix (dermal)**

2000 mg/kg bodyweight

##### **ATEmix (inhalation-gas)**

4500.000 ppm V/4 h

##### **ATEmix (inhalation-dust/mist)**

2000 mg/l 4h



**ATEmix (inhalation-vapor)**  
2000.mg/l 4h ATEmix

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Hydrogen peroxide 7722-84-1	72h EC50: = 2.5 mg/L (Chlorella vulgaris)	96h LC50: = 16.4 mg/L (Pimephales promelas) 96h LC50: 18 - 56 mg/L (Lepomis macrochirus) 96h LC50: 10.0 - 32.0 mg/L (Oncorhynchus mykiss)		48h EC50: 18 - 32 mg/L 24h EC50: = 7.7 mg/L

**Persistence and Degradability**

No information available.

**Bioaccumulation**

Not established

**Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Dispose of contents/containers in accordance with local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Hydrogen peroxide 7722-84-1	Toxic Corrosive Ignitable Reactive

**14. TRANSPORT INFORMATION**

**DOT**

Proper Shipping Name  
Hazard Class

NOT REGULATED  
NON REGULATED  
N/A

<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b>Proper Shipping Name</b>	NON REGULATED
<b>Hazard Class</b>	N/A
<b><u>IMDG/IMO</u></b>	Not regulated
<b>Hazard Class</b>	N/A
<b>Marine Pollutant</b>	N/A
<b><u>RID</u></b>	Not regulated
<b><u>ADR</u></b>	Not regulated
<b><u>ADN</u></b>	Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

### US Federal Regulations

#### EPA Registration # 84526-1

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrogen peroxide 7722-84-1	X	X	X	X

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
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Hydrogen peroxide 7722-84-1		1000 lb (concentration >52%)	
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**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Hydrogen peroxide 7722-84-1	X	X	X	X	
Supplier Trade Secret	X	X	X	X	
Supplier Trade Secret	X	X	X	X	

**International Regulations****Mexico****National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Hydrogen peroxide 7722-84-1 ( 5% )	A3	Mexico: TWA 1 ppm Mexico: TWA 1.5 mg/m <sup>3</sup> Mexico: STEL 2 ppm Mexico: STEL 3 mg/m <sup>3</sup>

Mexico - Occupational Exposure Limits - Carcinogens  
A3 - Confirmed Animal Carcinogen

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b> 1	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Physical and Chemical Hazards - Personal Protection</b> X
<b>HMIS</b>	<b>Health Hazards</b> 1	<b>Flammability</b> 0	<b>Physical Hazard</b> 0	

Prepared By Halosil International Inc.  
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Revision Note GHS SDS-3

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**